

The object of Culbert is to reduce the power consumption of the CPU by allocating processes to the ASICs and processing the interrupt requests in the CPU on a priority basis. Col. 5, lines 48-65. Referring to Fig. 2, registers 204 and 206 detect rising and falling edges indicating a connection with PCMCIA, for example. The rising and falling edges are determined in accordance with a voltage measured at the PCMCIA terminal. Col. 4, lines 1-2. The contents of the registers 202, 204, 206, 210, 216 and the logic operators (AND/OR gates) shown in Fig. 2 determine whether the ASIC will generate an interrupt for CPU processing. Interrupt generation is determined according to a priority scheme. The steps for operating the ASIC device are illustrated in Fig. 5. In relevant part, at step 610, the source register (Fig. 2, element 210) is read to determine the event causing the interrupt. Power to the peripherals is turned on at step 614. Significantly, the power to the peripheral devices is provided without regard to the outcome of the interrupt source. The mask register is reset and if the source is determined to be a high priority interrupt, this will take precedence over other processes. See Fig. 7, steps 702-710.

The Examiner maintains that Culbert suggests each step of independent claims 1 and 7. However, the Examiner only cites Culbert for teaching two aspects of the method and relies on official notice for the remaining method steps. The Examiner's rejection is deficient for at least three reasons.

— First, contrary to the Examiner's contention, Culbert does not teach determining a battery voltage of the personal data assistant upon detection of power on of an external communication terminal as described in claim 1. The Examiner cites col. 3, line 63 to col. 4, line 21 as teaching this feature. However, the cited portion merely teaches the detection of a rising and falling

voltage at an input/output pin upon connection and disconnection of a PCMCIA. This does not correspond to determining the voltage of the battery, but merely detects a form of voltage drop at an attached device pin. Similarly, independent claim 7 also describes checking a condition of the personal digital assistant power supply upon power up of an external device. As discussed above, the detected voltage drop for a connected device does not suggest this step of Applicant's method. Therefore, the Examiner's rejection is not supported for at least this reason.

Second, the Examiner cites cols. 4-5 for teaching the provision of a supply voltage to an external communication device. However, the cited portion merely indicates when a CPU will be interrupted to perform a process, as opposed to having a lower powered ASIC device perform a process. This is based on a priority scheme for the interrupts. By contrast, Applicant's claims — 1 and 7 describe that voltage is supplied to external devices depending on the occurrence of certain conditions with regard to measured voltages and a reference condition. With regard to the power supply step, the cited portion of Culbert is deficient in two respects. First, the claims describe voltages as determining the condition by which power is supplied to an external terminal. Culbert is based on a priority determination, not a voltage. Second, the claims describe the provision of voltage to the external device depending on a voltage analysis. Culbert merely teaches that process interrupt will be handled by the CPU, as opposed to an ASIC, depending on a priority determination. There is no suggestion that the interrupt provided by the PCMCIA will not be processed depending on a voltage value. Culbert's unconditional step of providing power to peripheral devices (Fig. 6, step 614) underscores this idea that the provision

— of power to external devices does not depend on voltage conditions of the PDA battery.

Therefore, independent claims 1 and 7 are patentable for this additional reason.

Third, the Examiner concedes that Culbert does not teach several steps for comparing a battery voltage with a reference voltage and does not generate any alarm messages. The Examiner cites “Official Notice” to make up for these deficiencies of Culbert. Applicant requests the Examiner to cite a reference discussing these aspects of the invention in accordance with MPEP 2144.03.

Additionally, it is not sufficient for the Examiner to merely cite the prior existence of voltage determination and comparisons in making the rejection. The Examiner must further provide a reason for including such steps in the invention disclosed by Culbert. The only reason the Examiner cites is the rationale taught by Applicant’s own disclosure, which is impermissible. In re Vaeck, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991). Applicant further submits that Culbert relies on a series of priority hierarchies for power management. To the extent that a voltage determination is used as a method for supplying power to external devices, this potentially contradicts the principle of operation of Culbert. For instance, in Culbert, if the battery voltage is determined to be sufficient to perform a low priority function, permitting such a low priority function to be performed may drain the PDA power supply so that a higher priority function cannot be performed. This contradicts the priority management scheme of Culbert, which is another reason why the Examiner’s suggested modification is not supported. Therefore, independent claims 1 and 7 are patentable for at least these reasons.

RESPONSE UNDER 37 C.F.R. § 1.111  
U.S. Appln. No. 09/124,052

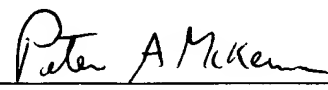

Because claims 4, 8 and 12 are dependent upon claim 1 and claims 9-11 are dependent upon claim 7, these claims are patentable for at least the reasons set forth above for the independent claims.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such action is hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,

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